

CLAIMS:

What is claimed is:

- 1 1. A device for implementing video surveillance on an existing physical network,
2 wherein the existing physical network supports data transmitted over a first carrier
3 signal, a second carrier signal and a plurality of other carrier signals, the device
4 comprising:
5 a data port for connecting to the existing physical network;
6 a modulator for modulating first digital signals onto the first carrier signal, wherein
7 at least some of said first digital signals representing sensory electrical signals,
8 said modulator electrically coupled to the data port;
9 a demodulator for demodulating second digital signals off the
10 second carrier signal, said demodulator electrically coupled to the data port;
11 a sensor assembly for receiving sensory inputs and for converting said sensory
12 inputs to said sensory electrical signals; and
13 a data bus for bi-directionally carrying a plurality of data items, said data bus
14 coupled between said sensor assembly and said data port.
- 15 2. The device recited in claim 1 further comprises:
16 an output port for outputting at least said plurality of other carrier signals.

- 1 3. The device recited in claim 1 further comprises:
2 a memory, said memory storing a plurality of instructions and stored data; and
3 logic circuitry, said logic circuitry operably coupled to said memory for responding
4 to and processing at least some of said plurality of instructions, said logic
5 circuitry further operably coupled said data bus for receiving and processing at
6 least some of plurality of data items.
- 7 4. The device recited in claim 3 further comprises:
8 an output port for outputting at least said plurality of other carrier signals.
- 1 5. The device recited in claim 4 further comprises:
2 a second modulator;
3 a switch, said switch electrically coupled between said data port, said output port,
4 and said second modulator.
- 5 6. The device recited in claim 4 further comprises:
6 a user interface for converting user interactions to electrical signals, said user interface
7 operably coupled to said logic circuitry.
- 1 7. The device recited in claim 3, wherein said logic circuitry is a central processing
2 unit.
- 1 8. The device recited in claim 1, wherein said first carrier signal operates between on a
2 carrier frequency between 0 MHz and 50 MHz.
- 1 9. The device recited in claim 8, wherein said first carrier signal is an upstream data
2 over cable service interface specification (DOCSIS) carrier.

- 1 10. The device recited in claim 1, wherein said second carrier signal operates between
2 on a carrier frequency between 500 MHz and 1000 MHz.
- 1 11. The device recited in claim 1, wherein said second carrier signal is a downstream
2 data over cable service interface specification (DOCSIS) carrier.
- 1 12. The device recited in claim 1, wherein at least some of said plurality of other carrier
2 signals operate on carrier frequencies between 50 MHz and 750 MHz.
- 1 13. The device recited in claim 1, wherein the plurality of data items carried on the data
2 bus are compliant with one of a universal serial bus class specification and a
3 universal serial bus draft class specification.
- 1 14. The device recited in claim 3 further comprises:
2 a second sensor assembly for receiving second sensors inputs and for converting
3 said second sensory inputs to second sensory electrical signals, wherein said
4 logic circuitry responds to and processes said second sensory electrical signals
5 for controlling said sensory electrical signals.
- 1 15. The device recited in claim 5 further comprises:
2 a second sensor assembly for receiving second sensors inputs and for converting
3 said second sensory inputs to second sensory electrical signals, wherein said
4 logic circuitry responds to and processes said second sensory electrical signals
5 for controlling said sensory electrical signals.
- 1 16. The device recited in claim 15, wherein the sensor assembly is a video camera and
2 the second sensor assembly is a motion detector.

- 1 17. The device recited in claim 16 further comprises:
2 a tuner for tuning one carrier signal of said first carrier signal, said second carrier
3 signal and said plurality of other carrier signals, said tuner coupled to said
4 output port; and
5 a display for displaying a representation of information on said one carrier signal of
6 the at least said plurality of other carrier signals, said display coupled to said
7 tuner.
- 8 18. The device recited in claim 15, wherein the sensor assembly is a video camera and
9 the second sensor assembly is a motion detector.

- 1 19. A method for implementing video surveillance on an existing physical network
2 having a head-end node and a plurality of distribution nodes, wherein the existing
3 physical network supports data transmitted over a first carrier signal, a second
4 carrier signal and a plurality of other carrier signals, the device comprising:
5 connecting a surveillance device to each of at least some of the plurality of
6 distribution nodes, said surveillance device comprising:
7 a data port for connecting to one of the plurality of distribution nodes, said
8 existing physical network supporting data transmitted over a first carrier
9 signal, a second carrier signal and a plurality of other carrier signals;
10 a first modulator for modulating first digital signals onto the first carrier signal,
11 wherein at least some of said first digital signals representing sensory
12 electrical signals, said modulator electrically coupled to the data port;
13 a first demodulator for demodulating second digital signals off
14 the second carrier signal, said demodulator electrically coupled to the data
15 port;
16 a sensor assembly for receiving sensory inputs and for converting said sensory
17 inputs to said sensory electrical signals; and
18 a data bus for bi-directionally carrying a plurality of data items, said data bus
19 coupled between said sensor assembly and said data port;
20 connecting a second demodulator to the head-end node, said second demodulator for
21 demodulating the first digital signals off the first carrier signal; and
22 connecting a second modulator to the head-end node, said second modulator for
23 modulating the second digital signals onto the second carrier signal.
- 1 20. The method recited in claim 19 further comprises:
2 connecting a network server to the second modulator and the second demodulator at
3 the head-end node.